CLAIM AMENDMENTS

1. (currently amended) A storage medium for the storage of ~~information and~~ data, wherein the storage medium comprises ~~at least two interconnected disks of which at least one comprises~~

a glass storage ~~glass~~ disk; ~~material and another comprises~~

a polymer ~~layer, having~~ disk on the glass storage disk;

a reflective coating ~~, arranged~~ between the polymer ~~layer~~ disk and the glass storage ~~glass material~~ disk; ~~upon which is arranged~~

a donor medium of ~~on at least one side a donor medium for~~ metallic ions between the reflective coating and the glass storage disk, ~~whereby by irradiation~~ the donor medium being so constituted that when irradiated with a focused laser beam [[,]] metallic ions reducible to metallic particles are locally transferred from the donor medium into the glass storage ~~glass material~~ disk.

2. (currently amended) The storage medium for the storage of ~~information and~~ data [[,]] according to claim 1 [[,]] wherein the ~~storage glass material comprises~~ donor medium is a localized metallic ion doping of the glass storage disk, whereby [[by]] irradiation by the focused laser beam [[,]] can convert

metallic ions of the doping ~~may be converted~~ into metallic particles or aggregations of metallic particles.

3 - 4. (canceled)

5. (currently amended) The storage medium according to claim 1 [[,]] wherein the metallic ions are ~~selected from the group comprising~~ of silver, gold, platinum, [[and]] or copper.

6. (canceled)

7. (currently amended) The storage medium according to claim 1 [[,]] wherein the polymer ~~layer features~~ disk is provided with an optically functional structure ~~comprising information~~ for ~~the guidance of~~ guiding a read/write beam.

8. (canceled)

9. (currently amended) The storage medium according to claim [[1]] 2 wherein [[a]] the metallic ion doping ~~in proximity of~~ is generally at a [[sur]] face of the glass storage ~~glass material~~ disk ~~is arranged on a side of the storage glass material facing~~ turned toward the polymer ~~layer~~ disk.

10. (currently amended) The storage medium according to claim 7 [[,]] wherein the optically functional structure [[in]] of the polymer ~~layer~~ disk is arranged on a ~~side facing~~ face of the polymer disk turned toward the glass storage ~~glass material~~ disk.

11 - 12. (canceled)

13. (currently amended) A process for storage of data with a storage medium, the process comprising the steps of:

providing a [[the]] storage medium ~~comprising at least two interconnected disks of which at least one comprises~~ having

a glass storage ~~glass material~~ disk, ~~and another comprises~~

a polymer ~~layer~~ disk on the glass disk, ~~having~~

a reflective coating ~~, arranged~~ between the polymer ~~layer~~ disk and the glass storage ~~glass material~~ disk, and ~~upon which is arranged on at least one side~~

a donor medium [[for]] of metallic ions on the reflective coating; [[and]]

irradiating ~~wherein by means of irradiation of~~ the glass storage ~~glass material~~ disk by focused electromagnetic or particle irradiation and thereby locally doping [[of]] the glass storage ~~glass material is carried out~~ disk with metallic ions from [[a]] the donor medium ~~arranged on the glass storage glass material~~; and

reducing the metallic ions in the glass storage disk to metallic particles arranged according to the data being stored.

14. (currently amended) The process for storage of data with a storage medium according to claim 13, ~~wherein by irradiation of~~ further comprising the step of

irradiating the glass storage ~~glass material~~ disk by electromagnetic or particle irradiation [[in]] through the glass storage ~~glass material~~ disk ~~doped with metallic ions, information is stored in the glass storage glass material disk by localized formation of~~ and thereby reading the data stored in the arrangement of the metallic particles ~~out of metallic ions, and stored information is read out by scanning the glass storage glass material with the irradiation in transmission or reflection~~.

15. (currently amended) The process according to claim 13 [[,]] wherein reading and writing of the ~~information~~ data with a laser beam takes place in a visible spectral region.

16. (currently amended) The process according to claim 14 [[,]] wherein ~~the formation of metallic particles takes place in a first step of irradiation by thermally inducing formation of metallic particle nuclei by the reduction of metallic ions, and in a second step, growth of metallic particle nuclei into a metallic~~

~~particle aggregation occurs~~ the ions are reduced to metallic particles by resonance-enhanced absorption of radiation.

17. (currently amended) The process according to claim 13, further comprising the step of ~~wherein deletion of~~ deleting stored ~~information and~~ data ~~takes place~~ by heating the storage medium.

18. (canceled)

19. (currently amended) The process according to claim 16 [[,]] wherein the reduction of metallic ions ~~occurs in response to a~~ is effected by heating [[of]] the entire storage medium above a transformation temperature of the glass storage ~~medium~~ disk.

20. (currently amended) The process according to claim 13 [[,]] wherein analog ~~information~~ data is stored by varying an intensity of the focused electromagnetic or particle irradiation.

21. (currently amended) A method for ~~forming~~ making a storage medium and storing ~~information~~ data therein, comprising the steps of:

applying a metal-ion donor medium [[on]] to a face of a glass storage disk whose opposite face carries ~~side of a storage medium, the storage medium comprising two interconnected disks, one~~

~~disk being a glass disk and another disk being~~ a protective polymer ~~layer~~ disk; and

irradiating the glass storage disk and donor medium with a first focused laser beam and thereby locally doping the glass disk by a local transfer of metal ions from the metal-ion donor medium to the glass disk in locally heated spots of the metal-ion donor medium and the glass disk ~~irradiated by a first focused laser beam~~.

22. (currently amended) The method of claim 21 [[,]] wherein the glass disk is locally doped in a helical track.

23. (currently amended) The method of claim 21 [[,]] wherein the glass disk is locally doped in a temperature range below a transformation temperature of the glass of which the glass disk is comprised.

24. (currently amended) The method of claim [[21]] 23, further comprising the step of:

reducing the metal ions to metallic clusters in locally doped areas by heating the glass disk with a second focused laser beam above the transformation temperature of the glass of which the glass disk is comprised.

25. (currently amended) The method of claim 24 [[,]] wherein the first focused laser beam and the second focused laser beam are the same, and ~~wherein~~ reducing the metal ions to metallic clusters occurs immediately after locally doping the glass disk.

26. (currently amended) The method of claim 21, further comprising the step of:

retrieving ~~information~~ data from the storage medium by detecting a phase displacement of a reading laser beam caused by an altered index of refraction in a locally doped area of the glass disk.

27. (currently amended) A storage medium [[,]] comprising: ~~at least two interconnected disks wherein one disk is~~

a glass disk; ~~and another disk is~~

a protective polymer ~~layer~~ disk on the glass disk;

a donor medium of metallic ions between the disks; and ~~the glass disk having areas locally doped with~~

metal ions in the glass disk transferred from ~~an attached~~ donor medium ~~, and wherein the metal ions are transferred~~ to the glass disk by a local heating with a focused laser beam.

28. (currently amended) The storage medium of claim 27 [[,]] wherein the areas locally doped with metal ions are configured as a helically doped track.